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THE SELF IN SCIENTIFIC PSYCHOLOGY

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A. INTRODUCTION

The self is often bowed out of psychology on the ground that scientific introspection has failed to discover it. The object of this paper is to examine and to estimate this charge. The problem is two-fold. First, is the fact as stated: have scientific psychologists really found no trace of a self? Second, if the fact be admitted, is the failure to produce a self due to the inadequacy of the methods or to the non-existence of the self? (Is there no fox at all or does he avoid the traps we have set for him?) The discussion of these main questions will follow upon an introductory section which considers the nature of scientific method and the meaning given to the term 'self' by those who claim it for psychology. These preliminary topics will be discussed in reversed order.

I. *The Nature of the Psychologist's Self*

The self is indefinable. To define is to assign the object defined to a given class and to distinguish it from other members of the class; and the self is *sui generis* and therefore incapable of definition. To quote Oesterreich, it "is a kind of thing which one can merely indicate (*auf das man nur hinweisen kann*) but which one can as little demonstrate to the I-blind as one can demonstrate color to the color-blind."¹ But Oesterreich's simile must not mislead us. The self, though indefinable, is not on this account elemental and thus indescribable. Its characters, as Miss Gamble points out, are 'properties' not 'differentiae.'² The characters of the experienced self on which the self-psychologists lay their emphasis are, first, its persistence or self-identity; second, its individuality or uniqueness; third, the fact that it is fundamental or basal to its experiences, and finally the fact that

¹ K. Oesterreich, *Die Phänomenologie des Ich*, 1910, p. 197¹.

² E. A. McC. Gamble, "A Defence of Psychology as Science of Selves," *Psychological Bulletin*, 1915, XII., p. 197¹.

it is related to its environment, social and physical. These characters have elsewhere been discussed by the writer and will be very briefly stated.³

(1) From Stuart Mill, in his well-known Note on James Mill's "Analysis of the Phenomena of the Human Mind,"⁴ to Knight Dunlap, with his 'notion of the Ego as an essential presupposition of psychology,'⁵ everybody who admits the self at all credits it with relative persistence, or identity. "Suppose," Dunlap says, "three items of content,—*a*, *b*, and *c*. Suppose I am aware of *a*, then of *b*, then of *c*. . . . The fact that I perceive all three . . . remains to the end an ultimate fact. The important thing is that the three items . . . are perceived by the same I. The perceptions are not the same; they may be separated by considerable intervals. What is the identity? Merely the identity of the I."⁶

(2) The individuality, or uniqueness of each self, is the character which distinguishes it from every other: all self psychologists, and often even those who deny the self, agree that "psychic facts belong to individuals" that "a feeling is either mine or somebody else's."⁷

(3) Both the persistence and the individuality of the self imply the fact that it is basal to the specific, concrete experiences—to the perceivings, imaginings, and emotions. In the words of Oesterreich, "all genuine psychic processes [are] states or functions of a subject, belong to an I."⁸ Or, in Dunlap's simpler statement, "we cannot talk of experiencing without an I which experiences."⁹ The self to be sure is never divorced from the specific experiences; as Oesterreich says, "it is not a something existing for itself beyond or beside" the experiences. On the contrary, the experiences

³ For further consideration of the characters of self, cf. the writer's "A First Book in Psychology," 4th edition, 1913, pp. 3 *et al.*, and XIII, and "Psychology: what is it about," *Journal of Philosophy*, 1908, V., pp. 65-67. Cf., also, A. Pfänder, *Einführung in die Psychologie*, esp. pp. 374, 380. For criticism of this view, cf. J. N. Curtis, this JOURNAL, 1915, 26, pp. 782-851.

⁴ Note 33 to Vol. II., chapter XIV., Section 7.

⁵ "The Self and The Ego," *Psychological Review*, 1914, XXI., p. 622. Cf. Dunlap, "A System of Psychology," chapters XVI and XX.

⁶ *Psychological Review*, *op. cit.*, XXI., pp. 66-67.

⁷ S. Witasek (an idea-psychologist), "Grundlinien der Psychologie," 1908, I Teil, Kap. 2, p. 38. Cf. James, "Psychology, Brief Course," 1892, p. 153; and Knight Dunlap, "The Self and The Ego," *Psychological Review*, 1914, XXI., p. 664.

⁸ "Die Phänomenologie des Ich," 1910, p. 225.

⁹ *Op. cit.*, p. 682.

exist in the self; in Ach's phrase, it constitutes their 'essential foundation.'¹⁰

(4) The relatedness of the self to the objects making up its environment has been specially stressed by the 'social' and 'differential' psychologists,¹¹ by Ward,¹² Mitchell¹³ and Rehmke,¹⁴ and by those 'functional' psychologists—notably Angell and Judd—who admit a self. "The standpoint of psychology" as Ward says "is that of the living subject in intercourse with his special environment."

In conclusion it should be stated explicitly that no finality is claimed for the enumeration of these characters as given in the pages preceding. The psychological description of self needs to be clarified, widened, and enriched by the efforts of all psychologists working in all branches of the science.¹⁵

II. *Psychological Methods*

Up to this point, only the first of the terms of our problem has been considered. From the formulation of the meaning of 'self' we turn, therefore, to a discussion of the nature of psychological method. Like the other sciences psychology may be said to employ two methods—observation and experiment. The first-named is fundamental since experiment always involves observation. Scientific observation is distinguished from the every-day consciousness of objects first, because it analyzes the objects which the plain man sees *en bloc* and as wholes; second, because it is always supplemented by classification of the observed objects. Experiment, as distinguished from observation, has the two-fold purpose of aiding analysis and of explaining the observed facts by dis-

¹⁰ N. Ach, "Über den Willensakt und das Temperament," 1910, pp. 248²-249.

¹¹ Cf. E. A. Ross, "Social Psychology," pp. 26f, 43f, 326 *et al.*; and W. Stern, "Die differentielle Psychologie," pp. 30, 57, 320f. *et al.*; and J. M. Baldwin, "Social and Ethical Interpretations," Part I.

¹² "On the Definition of Psychology," *British Journ. of Psychol.*, 1904, I., pp. 1ff.

¹³ W. Mitchell, "Structure and Growth of the Mind," Lect. I., p. 11 *et al.*

¹⁴ Lehrbuch der allgemeinen Psychologie," Iter Teil, esp. §§ 11, 12. Cf. Angell, "Psychology," p. 7; K. Dunlap, *op. cit.*, pp. 63, 68².

¹⁵ Dr. Josephine N. Curtis, in the paper cited on p. 496 above, makes the criticism that all the characters of the self should be subsumed under that of 'relatedness.' To consider the interesting suggestion involved in this criticism would be beside the purpose of this discussion which is concerned merely to note that the self has these four characters whether or not they are strictly coördinated. It should be observed also that the relatedness, here emphasized, is that of the self to its objects, or environment.

closing their relation to each other or to still other phenomena. The remainder of this section will discuss these methods as applied in psychology—first, experiment; and second, the fundamental method, observation, or, as used in psychology, introspection.

a. The method of experiment

In order to decide whether experimental psychology is adapted to the discovery of a self it is essential to keep in mind the nature of experiment. Roughly speaking, experiment consists in the artificial manipulation of one's material in such wise as to repeat, to isolate, and to vary it at will. Rigid experiment, as carried on by physical scientists, demands also measurement of the phenomena that they may be exactly repeated and varied.

It is obvious from this statement that, in the strictest sense of the word, experiment is impossible to psychology since psychic facts, like other phenomena of life, can be neither repeated and varied at will nor accurately measured. On the other hand, the physical conditions of perception—and indirectly of the predominantly sensational experiences, memory and imagination—can be isolated, accurately measured, repeated, and varied. And the motor reactions due to changes in either physical or psychical conditions can be measured, though they can not be exactly varied at will.

In a more or less modified sense, therefore, psychology may be called experimental in so far as it deals with perceptual experience or with motor reactions conditioning, accompanying, or following on consciousness. But this widening of the concept of experiment offers little hope of discovering the self through experiment. For, as regards experiments on perception and the allied forms of consciousness, self-psychologists teach either that it is difficult or that it is utterly impossible to observe the self in the perceptual experience. And the study of motor reactions, however important, is a subsidiary part of psychology.

The inevitable presence of the self in all experience constitutes another reason why the thorough-going self-psychologist should question his right to lay claim to the experimental method for the discovery of the self. This difficulty may be stated as follows: A phenomenon under experimental investigation may be regarded as the effect of its artificially manipulated stimulus. An experiment thus conceived should be judged by its conformity with the acknowledged inductive

methods. Under the given conditions, in an experimental study of any phenomenon, as X, one must study first, repeated phenomena which include X, and second, a series of phenomena resembling the first group except as they exclude X; and only in case of confirmatory results from both parts of the study has one a strictly valid experimental result.¹⁶ But this exclusion of X, when X is the self, can obviously never be secured if whenever I am conscious I am conscious of self. And so the omnipresence of the self disqualifies it as object of experiment.¹⁷

The conclusions from this study of experiment as a psychological method are then the following: Experiment is possible only in a modification of the physicist's sense of the word to psychology as a whole. And psychological experiment is, for two reasons ill adapted to the investigation of self. Because self is 'ubiquitous,'¹⁸ we can not test its presence under rigidly verifiable experimental conditions. And because the self is unemphasized in perception and imagination we are unlikely to find it by the modified experimental method which must limit itself mainly to the field of sensational experience.

b. The method of introspection

From ordinary scientific observation introspection is distinguished solely by its object which is a psychic not a physical nor a logical object. To quote Titchener, who more strongly than any other writer urges this truth, introspection "is in all essentials identical with the observational procedure of the natural sciences;"¹⁹ "there is absolutely no difference in principle between introspection and inspection."²⁰

Introspection as a method of scientific psychology must be carefully differentiated from the unscientific variety of self-observation. Here, again, one can do no better than to follow rather closely Titchener's lead. Two sharp distinctions must be made. (1) Scientific introspection differs in the first place from "a rationalizing philosophy" which reflectively interprets consciousness "in terms of some phil-

¹⁶ Cf. J. S. Mill, "A System of Logic," Book III., Chapter VIII., § 4.

¹⁷ Those self-psychologists who teach that we are often, but not invariably, conscious of self will not be affected by this consideration. Cf. pp. 517f., below.

¹⁸ For use of this term consult R. B. Perry, "The Egocentric Predicament," *Journal of Philosophy*, 1910, VII.

¹⁹ The Schema of Introspection," this JOURNAL, 1912, 23, p. 487¹.

²⁰ "Experimental Psychology of the Thought Processes," p. 238¹.

osophical system."²¹ The interpretation may be animistic, or materialistic, or idealistic; but in so far as a writer discusses what must be inferred to exist, not what is or has been directly experienced, he is not simply introspecting.

(2) Introspection, in the second place, is distinguished both by its method and by its aim, from every-day, 'common-sense' self-observation. The plain man's observation of self, like his observation of any object, is unanalytic. It deals with experiences as wholes instead of analyzing out and emphasizing the peculiarities marking off one experience from another. The terms which record these untechnical introspections are an evidence of their unanalytic character. When "a half-trained observer," once more to quote Titchener,²² records the experience of 'puzzle' or 'perplexity,' the word tells the teacher, "nothing whatsoever of the observer's individual experience, of the particular 'feels' that constituted the perplexity in the particular case."

In purpose as well as in method the psychologist and the unscientific introspector differ. The former has a theoretical aim: to understand consciousness. The latter regards his experience from the practical, not from the theoretical, scientific point of view. The unanalytical terms of his self-observation serve him simply and amply as cues to action. Nothing more is necessary "for the affairs of every-day life, for social intercourse, for the regulation of behavior."

One particular sub-form of every-day self observation should be distinguished with special care from scientific introspection. It may be described as valuing self-observation, and includes the morbid, the sentimental, and the ethical varieties of attention to consciousness. Titchener has it in mind in his distinction of 'the introspection of the psychological laboratory' from that of a 'moralising common-sense;' but the term 'moralising' is too narrow to be used, as he here uses it, to cover the "absorption, anxious or complacent, in the strength of our intellect, the delicacy of our sentiments, the firmness of our resolution." The psychologist, in contrast with the introspector of this type, observes himself, as Titchener truly notes, not for any motive of self-interest or self-appraisal or self-glorification but "because his mind is the only mind directly accessible to him, and mind is the topic

²¹ E. B. Titchener, "Prolegomena to a Study of Introspection," this JOURNAL, 1912, 23, p. 436.

²² "Description vs. Statement of Meaning," this JOURNAL, 1912, 23, pp. 167²f.

of his professional interest.”²³ Titchener adds that “introspection may be as impersonal, as objective, as matter of fact as is the observation of the natural sciences;” and the self-psychologist gladly subscribes to this statement, on the understanding that ‘impersonal’ means ‘disinterested.’

From discussion of the nature of introspection the transition is easy to the consideration of its different forms. For the purposes of this paper, the distinction between direct and indirect introspection need be only named.²⁴ Some psychologists, notably Ach, contend that direct introspection, involving a distraction of attention from the ‘object’ to the ‘subject’ of consciousness is rarely if ever, possible. The present writer however finds, with other observers, that it is sometimes, at least, possible to attend to attention²⁵ without dispersing it and agrees with Titchener that the disturbance which Ach notes is due rather to the attempt to record introspection than to introspection itself. “The fact is simply” Titchener says,²⁶ “that when an experience is in process you cannot . . . take note of it, find forms of verbal expression for it, report upon it; the experience will not wait for you.”

It is of far more importance to distinguish introspections according to their greater or less approximation to experimental procedure. To draw hard and fast lines of division would be as futile as it would be difficult, but it seems possible, from this point of view, to distinguish at least two stages of introspection:—

I. Incidental (or, in Titchener’s phrase,²⁷ ‘casual’) scientific introspection under ‘standard conditions.’ Of course, much of our incidental introspection is not scientific but in “remembering green” for example, we can “(1) keep distracting stimuli away, and (2) introspect the memory-green or the fancy-

²³ “Prolegomena to a Study of Introspection,” this JOURNAL, 1912, 23, pp. 433-434¹.

²⁴ Cf. Titchener, “The Schema of Introspection,” this JOURNAL, 1912, 23, pp. 491-493 with footnote 11, 502-503 with footnote 45; and “Experimental Psychology of the Thought-Processes,” pp. 237ff. These passages discuss also the difference between Ach and other experimental introspectors in regard to the relative advantage of introspection guided by questions from the experimenter, as compared with unguided introspection. But this consideration, also, is not relevant to the main purpose of this paper.

²⁵ The self-psychologist would describe such introspection as attention to the self-attending-to-its-object. From this point of view, introspection (as secondary attention) has a two-fold object—(1) the attending self, (2) the object of the primary attention.

²⁶ Cf. “Experimental Psychology of the Thought-Processes,” p. 237.

²⁷ “Prolegomena to A Study of Introspection,” this JOURNAL, 1912, 23, p. 444³.

green in an even frame of mind. These are standard conditions. They can be accurately recorded by the psychologist who introspects and they can be repeated by other psychologists."²⁸ Any experience, whatever the circumstances under which it occurs, can be scientifically introspected so far as distraction is eliminated, an 'even frame of mind' is preserved, and accurate record is made.

2. From such incidental scientific observation, 'systematic' or 'controlled,' introspection is distinguished in that the introspection is deliberately made, often in the interest of a specific theoretic problem, and follows upon pre-arranged signals, verbal or concrete, to one or another sort of mental operation. There are two sub-forms, of systematic introspection. In the first, and simpler, the pre-determined stimuli to introspection²⁹ are incapable of measurement and of any save inexact variation. Accordingly, only introspective reports, with no 'objective' results as by-products, are gained by this procedure. Bühler's use of the question-method is a classic example. Beyond the general qualification of their fitness to stimulate thought there is no essential likeness between the problems set to Bühler's subjects, which vary from such questions as, "Can we by our thinking apprehend the nature of thought?" to such others as, "Can you reach Berlin in seven hours?"³⁰

The second form of systematic introspection is distinguished by the experimental control of the physical conditions of the introspection. There are again two sub-classes.³¹ In the

²⁸ In "A Primer of Psychology," pp. 33-35, from which this quotation is made, and occasionally in his later writings, Titchener designates such an observation as 'experimental introspection.' The writer, as will appear, prefers to give a narrower meaning to this phrase. It should, however, be observed that incidental, scientific introspection shades almost imperceptibly into the non-experimental form of systematic introspection.

²⁹ The expression 'stimuli' (more accurately 'physical stimuli') is used here, and in the pages which follow, in untechnical sense to apply to any non-psychical incitements to consciousness—such as words, diagrams, pictures, clicks.

³⁰ K. Bühler, "Tatsachen und Probleme zu einer Psychologie der Denkvorgänge," *Archiv. f. d. ges. Psych.* 1907, IX., p. 304.

³¹ This classification of the forms of introspection may be summarized as follows:

- I. Incidental Introspection
- II. Systematic Introspection
 - a. Non-experimental
 - b. Experimental:
 1. To predominantly sensational experiences.
 2. To predominantly unsensational experiences.

first of these—the experimental introspection of sensation, perception, memory, and imagination—the conditions of the experience can be wholly, or largely, controlled. In the second—the experimental introspection of thought, recognition, emotion, and will—the physical stimuli constitute a small part only of the antecedent conditions, for these ‘higher processes,’ in far greater degree than perception and imagination, are psychically conditioned. Yet, as part-conditions, the physical stimuli can—with advantage to psychological analysis—be repeated and, to greater or less degree, varied and measured. Such a procedure will yield not only records of introspection but also material for ‘objective treatment.’ Examples of these reproducible stimuli to non-perceptual consciousness are the diagrams, some repeated and some varying more or less from the standard, which Katzaroff showed to his subjects in his study of recognition;³² the numerals presented by Michotte and Prüm in their study of choice;³³ and the series of nonsense-syllables learned, by the subjects of Ach’s study of will, through varying numbers of repetitions.³⁴

In comparing these forms of scientific observation it must be borne in mind that all forms, even incidental introspection, can secure the ‘general conditions of psychological experiment,’ the physical comfort, the trained attention, and the impartiality of the observer. Systematic introspection, even in its non-experimental form, may have two further advantages: first, and most important, the coöperation of laboratory-trained subjects whose introspections have inherent value. Thus, the Bühler investigation of thought, whatever criticism be made on its method, will ever retain significance precisely because Külpe and Dürr were its subjects. And, in the second place, this form of systematic introspection, though it admits no repetition and variation of stimuli, yet provides for the use of questions conforming to different marked types of interest and for a repetition not indeed of the questions themselves but of the types. Wundt ignores this feature of the question-method and his attack on Bühler seems, in so far, indiscriminating and unjustified.

In spite of these acknowledgments it must, however, be admitted that non-experimental introspection suffers from lack of objective control and thus from absolute dependence on the unchecked introspection of the observer, and from the constant temptation to attack large problems, insufficiently

³² Cf. pp. 505ff. below.

³³ Cf. pp. 508ff. below.

³⁴ Cf. pp. 511ff. below.

analyzed, by methods too untechnical.³⁵ At all these points the advantage lies with experimental introspection which unquestionably more closely approaches the ideal of the scientist. For by this procedure, as has appeared, it is possible to repeat accurately, to vary widely and often exactly, and to compare (often by measurement) not only the concrete physical conditions or part-conditions but sometimes also certain physiological conditions of the perception or imagination, the emotion, the recognition, or the activity under investigation. This fundamental superiority is supplemented by two other advantages. In the first place, the objective results—numbers of color mixtures rightly made, of syllables correctly remembered, or of choices of one or another type—these numerical results may have value in themselves and may even be of indirect use in the analysis of the introspections. Second, and perhaps more important, the experimental environment and procedure in itself disposes the trained subject to the even, alert, unemotional attitude of the good introspector.

The method of experimental introspection as applied to experiences whose physical conditions are very incompletely controlled, is still in its infancy. In the nature of the case it can proceed but slowly because of the unprecedented demands which it makes. Foremost of these, it has already appeared, is the imperative requirement of thoroughly trained subjects. When, as in the simpler forms of psychological experiment—in sensation, reaction, and memory-experiments—objective results are important, these can evidently be obtained from subjects with relatively little training, provided they are numerous enough and closely superintended. When, however, the results of introspection constitute not merely an integral factor but the special object of study, it is necessary to have subjects at once highly-trained and unprejudiced. Almost equally necessary is an investigator who is himself well-trained in introspection and gifted in the understanding of introspecters' reports. Mechanical skill in the manipulation of apparatus, accuracy in reporting, industry in the calculation of medians, averages, and mean variations, can never take the place of these essential requisites.

Considering the difficulties involved, the progress of the method of experimental introspection, thus applied, has been not inconsiderable. By means of it scientific psychology is slowly advancing its boundaries beyond the confines of sense-psychology. In particular, judgment and comparison, recog-

³⁵ Cf. Titchener, "Experimental Psychology of the Thought Processes," pp. 96f.

nition, and volition have been investigated by methods of observation more or less strictly regulated. In controlled introspection, thus conceived, the self if it exists should be found. Critics of self-psychology are amply justified in insisting that the self can have no status in scientific psychology unless it be discovered by this method. In the following sections of this paper the attempt will be made to show that experimentally controlled introspections have discovered the self and to explain why the "returns" are relatively so scanty.

B. THE SELF AS DISCLOSED BY INTROSPECTION

1. *The Self in Experimental Introspection*

This section will summarize the results of certain experimental introspections which disclose a self. The earliest record known to the writer, in the literature of strictly experimental introspection, of an explicit consciousness of self is made by E. Dürr. His subjects, he says, "have often reported: This . . . experience appears to us an especially striking act of will, for we felt ourselves concerned in it (*dabei engagiert*) with our whole personality." "It is a fact," Dürr says, a little later, "that the subject experiences a vivid, continuous consciousness of self."³⁶ In Dürr's study, however, the consideration of self is purely incidental. The following pages will summarize detailed introspections in which the self plays an important part.

a. *Katzaroff's Study of Recognition*³⁷

Katzaroff exhibited to his subjects geometrical drawings each occupying 2 to 4 square cms. on a white background of 6 x 9 cm. The drawings were grouped in series of six and three series were presented to each subject at an experimental sitting. The drawings on which Katzaroff's paper is based were fixated each for six seconds; and each was shown after an interval of four seconds from the disappearance of the next preceding. A five-minute interval separated the series. Five minutes after the appearance of the last series, the test-series was shown. This was made up of the 18 'normal' drawings already shown (N) mixed with 18 similar but 'varying' drawings (V). The subjects were ten in num-

³⁶ E. Dürr, "Die Lehre von der Aufmerksamkeit," 1907, pp. 73¹, 74², 75².

³⁷ D. Katzaroff, "Contribution a l'Étude de la Récognition," *Archives de Psychologie*, 1911, Vol. XI., pp. 1-78. The parenthesized references of this section are to this monograph.

ber, five men and five women, nine of them students and one a professor. They knew that the test series were made up partly of repeated and partly of new diagrams. Every subject took as long a time as he wished to respond 'yes' or 'no'—meaning 'familiar' and 'unfamiliar'—as each drawing was shown; and he was then asked to "describe as completely as possible his whole experience (*tout ce qui s' était passé en lui*) from the moment of the appearance of the drawing up to the time of his reply."³⁸

Katzaroff's study is based on 1,100 such records. Only one of his subjects, presumably the professor, knew the purpose of the study; the others supposed that he was investigating reproductive memory. Both the 'objective' and the 'subjective' results of the investigation are summarized. Under the first head are tabulated the relations of true and false recognition. (Katzaroff applies the term 'true recognition' as well to cases in which the novel figure is called 'unfamiliar' as to cases in which the repeated figure is called 'familiar.') He makes the following points among others: (1) that the correct recognitions are in the majority (pp. 30-31); (2) that four degrees of certitude may be distinguished (p. 32); (3) that the time taken for recognition reveals the quality rather than the correctness of recognition (p. 37). By this Katzaroff means that when associated images "play the chief rôle in recognition" the time required for designating novel designs as unfamiliar is less than that for designating repeated images as familiar, whereas the opposite holds when the preponderant rôle in recognition belongs to the feeling of familiarity (*le sentiment de connu et de familier*).

But this summary of Katzaroff's conclusions about numbers and times of correct and false recognitions is merely preliminary to the study of what he calls his subjective results. The following are illustrative extracts from his subjects' records:

"Ex. 18 (N): + Seen before; very sure; I remember that I attended to the shape of the cube and to the apices and the sides of the triangle. I said to myself that I could easily reproduce them (p. 46)."

"Ex. 51, fig. 6, (V):—Seen before, very sure. As always, I immediately experienced the feeling of familiar (*le sentiment de connu*). Then I remembered that I had examined the diagram several times since fixating it and that I had taken sharp notice of the little circle and of the vertical line in the little indentation of the circumference.—(N): + Seen be-

³⁸ For the description of procedure cf. Katzaroff, *op. cit.* pp. 29f.

fore, very certain; even while I was writing the above I felt a little doubt about the details but the design seemed so familiar to me that I did not pay attention especially since they were the same. But now I recognize well the position of the details (p. 62)."

It is perhaps unnecessary to point out that these are unsatisfactory introspective records, in themselves indicative of little training on the part of most of Katzaroff's subjects. The records abound in the unanalytic terms of uncritical observers, as when, for example, Katzaroff's introspecters talk of attending to 'cubes' and 'perpendiculars,' instead of analyzing out of these experiences the kinaesthetic and visual sensations which they contain. Opinions will differ as regards the degree to which the inadequacy of the records affects the correctness of the conclusions.

These conclusions may be summarized as follows: (1) Associated images (though essential to indirect and to complete recognition and though often serving to confirm the certainty that a recognition is correct) neither *constitute* nor *determine* recognition. Almost always, indeed, the images associated by the recognized drawing follow upon the recognition or consciousness of familiarity (pp. 46-48).

(2) Recognizing, in the second place, can not consist in comparing the percept of a given object with the memory-image of the same object, for Katzaroff's subjects never base their recognition on the completeness of a memory-image and, indeed, their memory-images never are complete and often are inaccurate (p. 77²).

(3) The essential factor in recognition, according to the introspective records, is the feeling of familiarity—what Katzaroff calls '*l'impression ou [le] sentiment de familier*' (p. 49³),³⁹ '*le sentiment de familier, de connu, de déjà vu*' (p. 44¹). This feeling he describes as immediate (p. 44⁸), as 'accompanied often by a feeling of satisfaction' (p. 44)⁴⁰ and more fully as "a feeling . . . that a thing already belongs to one's experience (p. 77¹). . . . The feeling of the familiar, the 'seen before,'" he continues, "which accompanies a repeated sensation arises from the fact that this very sensation has connected itself with the very feeling of our 'self' and has been enveloped by this feeling of self (*s'est associée au sentiment lui-même de notre 'moi,' a été envelopée par celui ci.*" (p. 78². Italics Katzaroff's.)

³⁹ Cf. pp. 50, 75.

⁴⁰ He sometimes designates this as the 'affective element (*l'élément affectif*)' Cf. pp. 49, 53.

Evidently Katzaroff finds clear evidence of a self in recognition.

*b. The Study of Michotte and Prüm on 'Voluntary Choice'*⁴¹

The method and the procedure of the experiments of Michotte and Prüm may be summarized as follows (pp. 128 ff.):—The subject, always alone in a room, was told that a card containing two numerals would be shown him. He then chose between two arithmetical operations, for instance, between multiplying and dividing the numerals in question. The choice was to be made "for serious considerations." (This direction was given "to preclude mechanical reactions" (cf. pp. 140-141, 159ff).) Then, without carrying through the operation (pp. 129ff), the subject reacted by touching a key. This concluded Period 1 of the experiment. In Period 2, the subject, still entirely alone, "devoted himself as painstakingly as possible to introspection, reviewing everything from the moment of the appearance of the stimulus. As soon as this observation was concluded and the different states fixed in his memory he gave a signal to the experimenter waiting in the next room" and then dictated to him the results of the introspection (p. 143²). The subjects were Michotte (in 229 observations), Prüm (in 122) and four other subjects in 95, 90, 48 and 20 experiments respectively. All agreed that they made genuine choices, resembling ordinary voluntary decisions (p. 130).

Introspective records and numerical results are given in great detail and with ample comment. Among the more important topics which are discussed are the perception of the stimulus, the nature of alternatives, and the effect of instruction. Particularly noteworthy chapters describe the 'intermediary' and the 'final' stages of choice. The factors of the former are the consciousness of doubt and of expectation closely fused with strong muscular sensations. In the final stage "expectation is fulfilled, doubt gives place to certainty and, in general, muscular tension disappears" (p. 182³).

This final stage of choice may, and often does, include (1) verbal image, (2) kinaesthetic consciousness due to head movements and to intake of the breath and (3) affective experience; but its only essential character (pp. 194²-195¹) is that which the authors call the 'consciousness of activity'

⁴¹ "Étude Expérimentale sur le Choix Volontaire et Ses Antécédents Immédiats," par MM. A. Michotte et E. Prüm. *Archives de Psychologie*, 1911, X., pp. 113-320. The parenthesized references in the following pages are to this monograph.

—an experience, as they expressly state, which is no “distinct content by the side of others, and is absolutely different from the feeling of muscular activity (p. 194).” On the positive side, they characterize it as “leading directly to the affirmation of the intervention of the self” and as describable only through the use of infinitives, such as ‘faire,’ ‘agir,’ ‘se tourner vers,’ ‘laisser aller’ (pp. 193-194¹).

The following are representative introspective records:—
M. 185: “On hearing the directions read I felt a strong muscular contraction in my chest with a feeling of agitation and unpleasantness. Then I said to myself: ‘Nevertheless I ought to do it’ (p. 154).”

P. 512—“In acoustic-motor form, ‘division!’ The articulatory sensations were rather strong in the moment of pronouncing; at the same time a slight inclination of the head and an ‘awareness’ (*savoir*) that it was *I* who acted (*agissais*) . . . (p. 189).”

M. 419. “At the decision the consciousness of determination was very definite. I notice this particularly when I compare this phenomenon with the manner in which a content of consciousness appears through association. In the latter case I cannot say, as here, ‘I say it.’ On the contrary, as associated, the content is pronounced of itself. Herein, in particular, I find what I call ‘willed,’ voluntary. It is something absolutely different from the feeling of muscular activity” (p. 192).

M. 433. “The feeling of expectation was suddenly interrupted by decision. The consciousness of acting, of doing, of determining, was clearly presented, though there was no representation of the *I* and though the *I* was present in no other explicit way. At the same time I felt this muscular activity, a muscular contraction, but the consciousness of activity was totally different from this and from the feeling of relaxing tension.” (P. 192.)

These records confirm the insistent assertions of the authors that the consciousness of activity, so prominent in their recorded choices, is not to be identified with kinaesthetic sensations, with verbal images, or with affective consciousness. For these introspecters report their sensational and affective experiences but explicitly distinguish them from the consciousness which they describe in such phrases as: “it was *I* who acted.” In the authors’ view, the activity consciousness is indefinable: it is an ultimate datum (*une donnée dernière*, p. 311). It so easily escapes detection, simply because other more vivid factors of the total willing consciousness “impose themselves on it (p. 312²).” And, whether

explicit or implicit, "the I manifests itself in a wholly special way in the act of will (p. 311³)."

Of great interest is the more detailed analysis of the activity consciousness. The authors find activity present not only in will but in tendency, desire, and wish (p. 195³) and even in submission, or consciousness of passivity, which they sharply distinguish from the inactive, or receptive, consciousness.⁴² They enlarge the meaning of the words 'choice' and 'decision' using these terms to cover involuntary, automatic, as well as truly voluntary responses (pp. 204ff). Under 'voluntary choices,' they distinguish true decisions from consents in which the chosen alternative alone is present or strongly favored (pp. 190 *et al*).⁴³

An important conclusion which Michotte and Prüm base on the recorded introspections has still to be stated. After-reflection on the consciousness of activity, leads their introspecters, they tell us, to the conclusion that the self, in choice, is causal; and this conceptual consciousness of the causal self appears not in the immediate experience of choice but in the reflection upon it.⁴⁴ This teaching, that "the concept of the I is not found in the moment of voluntary action but that it imposes itself on the subject when he is set to describing exactly what has passed" (p. 192) is not unlikely to be taken by the critic of self-psychology, as evidence that the consciousness of self reported by these observers is a philosophical afterthought, an intrusion due to the 'psychologist's fallacy.' Certain statements of Michotte and Prüm lend themselves to this interpretation. Yet it is difficult to believe that they hold this view and wholly impossible to reach this conclusion from a study of their recorded introspections. For these justify not the denial of an immediate awareness of the self as choosing but merely the denial of an immediate consciousness (or an explicit consciousness) of the self as causal in willing. Such an awareness of the causal self is, however, admitted by everybody to be a conceptual, philosophical experience.

It may be added that the past tense in which the consciousness of self is recorded—for example, in the statement "*c'était moi qui agissais*"—is inevitable under the conditions of the experiment which required that report be a repetition of silent

⁴² Cf. the writer's "A First Book in Psychology," pp. 244ff, 252ff., for the same view (except as regards the use of the term 'passivity').

⁴³ Cf. William James's distinction of choices with and without effort.

⁴⁴ On the appearance, after successful volition, of the consciousness of the self as cause, cf. Ach, *op. cit. infra*, pp. 265ff.

introspection. In truth, this past tense is used not only of the consciousness of self but, of series of images in such statements as, "il y avait une image visuelle."

The fact that Michotte and Prüm regard their results as essentially agreeing with Ach's clearly confirms this interpretation of their conception of will as self-activity. For, as will appear immediately, Ach unambiguously finds in willing an activity of the self.

c. Ach's Second Experimental Study of Volition⁴⁵

The method employed by Ach in this investigation was the following: Using an apparatus similar to that of Müller and Pilzecker (p. 24), and with the usual precautions against time and space-errors (pp. 29ff) he exposed before his subjects 8-syllable series of nonsense-syllables to be memorized. One of these series, the normal (gewöhnliche or *g*) series, was made up, like the ordinary memory-series, of unrelated syllables (p. 20); a second series (*r*) was composed of rhymed syllables, *zup tup, mär pär, bis zis, tel mel* (p. 26); in a third (the *umgestellte* or *u* series) the consonants of successive syllables were reversed; *dus sud, rol lor, nef fen, mön nöm* (p. 25⁴). In some of the experiments the reversed series were omitted (pp. 56ff); and in certain groups of experiments word-syllables replaced the nonsense-syllables as in *Staf-fel, Rit-ter, Gar-ten, Pfir-sich, Nürn-berg* (pp. 182ff).

After the series had been repeated a given number of times, so as to form associations with each other, pair by pair, the odd-numbered syllables were repeated and the subject was either directed to respond to each, as he heard it, with the originally associated syllable or else he was told to respond by a syllable of another indicated type. In Procedure I, for example, which was designed to facilitate strong associations between syllables, the single series of normal (*g*), reversed (*u*), and rhymed (*r*) series were read 20 times each on the first day (each series 8 times, followed by each series 6 times, and again by each series 6 times—60 series in all, p. 28⁴). On the six following days each series was read 10 times (p. 29¹). With the seventh day began the test-series. In these the 12 odd-numbered syllables (the first, third, fifth, and seventh of each of the series) were supplemented by 4 new syllables (*n*), shuffled,⁴⁶ and shown the subject ten times

⁴⁵ N. Ach "Über den Willensakt und das Temperament," Leipzig, 1910. Parenthesized references in the pages which follow are to this work.

⁴⁶ For the exact arrangement, the text of Ach should be consulted.

each; and he was now required to react in a novel fashion—for example, to rhyme a syllable which in the series, so often repeated, had been followed by a 'normal' one or to 'reverse' a syllable previously rhymed. The specific purpose of the experiment was to discover the effectiveness of the will-to-respond by a new syllable of definite type, as measured against the habit-of-responding with the syllable learned through repetition of the series. The number of repetitions which had to be just exceeded in order that the reaction should be due not to the will to respond according to instruction but to the associations already formed is called "the associative equivalent of the will."⁴⁷ For one of his subjects, A, Ach finds, for example, that given a moderate concentration of the will, when (a) the series of reversed syllables has been learned by the many repetitions of Procedure I. and when (b) the requirement is to react to the syllables, displayed in the test series, by rhymed syllables in place of the former 'reversed' associates, "the associative equivalent of will lies between 100 and 120 repetitions" (p. 45⁸). This means that, if the reversed series (dus sud, rol lor, nef fen, mön nöm) had been 100 to 120 times repeated, subject A was just unable to respond to 'nef' by a rhymed syllable. Whereas, if the learned series had been only 90 times repeated he could, ordinarily at least, carry out his will to rhyme the syllable.

The two first chapters of Ach's book contain the further details of his procedure and discuss in detail the quantitative, or objective, results of his experiments. By varying the character of his series, and the number of repetitions, he was able to vary the strength of the associations between successive syllables, and thus to obtain an objective estimate of the concentration of the will required to overcome the associative obstacles. The effect of these varying obstacles was manifested in the lengthening of the willed reaction, in the occurrence of false reactions, and in paraphrased or hesitating reactions.

It would, however, be beside our purpose to discuss at length these 'objective' results. For our main concern is with the introspections reported by the subjects of these experiments and with the analysis of will based by Ach upon these introspections. It is to be regretted that Ach sum-

⁴⁷ "Diejenige Zahl von Wiederholungen einer Silbenreihe welche eben überschritten werden muss damit die gestiftete Assoziation und nicht die Determination den Ablauf des Geschehens bestimmt, bezeichnen wir, als das assoziative Äquivalent der Determination," p. 43⁸.

marizes and only briefly quotes from these introspections instead of transcribing his introspective protocols in full. We are none the less justified in attributing a genuine value to Ach's records and to the conclusions which he bases on them. For the abbreviated method of presenting introspective reports is identical with that of Ach's earlier work, "Über die Willenstätigkeit und das Denken;" and competent experimentalists have commended the method of this earlier investigation and accepted, with greater or less modification, its conception of determining tendencies or dispositions.

The following are representative passages of Ach's records of introspections:

Subject R. Procedure IV. (Word-syllables.) Instruction: to rhyme. Following upon a false reaction "an energetic act of will began in the introductory period of the next experiment. Strong fixation of the field with the expectation that one of the accustomed syllables would appear there. Hereupon, immediate transition to the resolve 'I will this time really pronounce a rhyme' (an awareness in which 'I can' as well as 'I will' was included). Then the perception of the field vanished and very vivid sensations of strain were experienced in the forehead and in the organs of speech." (Pp. 231-232.)

Subject R. Procedure IV. Introductory Period. Instruction: to rhyme. "Fixation of the screen with weak strain-sensations in the forehead, then [the word] 'Stamm' visually projected with the consciousness 'I will form a rhyme to a word of that type.' Then inner speech 'I will' with the meaning 'I will form a correct rhyme' (a sudden (*stossartiger*) energetic resolve with intensive concentration, greater predominance of the strain sensations in the organs of speech and disappearance of the visual image *Stamm*)."

 (P. 232.)

Subject K. Procedure IV. "Instruction: 'Energetically resolve immediately after the reading to form a rhyme.' Hereupon resolve with the consciousness 'I will form a rhyme with the [word] which is going to appear at the point which I am fixating,' with strong strain-sensations in the abdomen, larynx, and forehead. (These sensations were stronger than in the preceding experiments.)" (P. 192.)

On the basis of many such introspections Ach analyzes the primary or 'energetic' volition into four phases or 'moments' (p. 247) ultimately fused: First, the perceptual phase (*das anschauliche Moment*) made up of the strain-sensations which characterize attention (p. 238). Second, the objective phase,

the consciousness—usually imagined in verbal terms but sometimes an imageless awareness, or *Bewusstheit* (pp. 240, 138)—of the end or aim of will (pp. 239f). Third, and most important, the actual phase, described by Ach as an activity (*Betätigung*), an attitude (*Stellungnahme*), the consciousness, "I will." (Pp. 240 *et al.*, 292², 242³.) Fourth and finally, the consciousness of difficulty and of exertion (*Anstrengung*, p. 245). Ach contrasts this as a state (*zuständliches Moment*) from the activity of will, and groups it—along with doubt, perplexity, and wonder—among Marbe's *Bewusstseinslagen* (pp. 9f.).

Of these four 'phases,' the consciousness of end and the self-activity are most important and are discussed in close relation to each other. The end of will is, in Ach's experiments, always itself an action—to make a rhyme, or to reverse consonants; and this action, furthermore, is not 'action in general' but always a deed which *I* am to perform (p. 240²), that is, it includes the consciousness of self. But this specific act, which may constitute the end and outcome of will, must be most carefully distinguished from the activity (*Betätigung*) in which will consists (p. 240² *et al.*) and in which, Ach reiterates, the self-aspect (*die Ichseite*) of psychic events is peculiarly prominent (p. 241²).⁴⁸ The *I* constitutes, in truth, the starting-point of the relation to the objective moment, that is, to the end (p. 244⁵). Such a consciousness of the end to be realized through the self brings with it the consciousness of "the exclusion of every other possibility" (pp. 241-242), and in Ach's view makes explainable the actual, objective effectiveness which distinguishes will from mere intention (pp. 248-249).⁴⁹

Ach attributes one further character to primary, or energetic, willing. At this level, he teaches, self-activity is always fused with a consciousness of future achievement; and "ich

⁴⁸ Meumann, "Intelligenz und Wille," 2te Aufl., p. 229, is at pains to point out that this conception of the will as self-activity contains nothing essentially new as compared with Meumann's theory, set forth in the first edition of "Intelligenz und Wille." This is true; and a similar comment might be made on Meumann's original statement.

⁴⁹ This teaching of the effectiveness of will and the conception of the objective phase of volition constitute the main points of contact between Ach's earlier and later doctrine of volition. The later teaching is in no sense opposed to the earlier, though it is stated in relative independence of it. The 'determining tendencies,' though not infrequently referred to, more often retire to the background. (Cf., however, pp. 249-256, the section on "Die dynamische Seite—Wirkungsgrad des Wollens.")

will" is equivalent to "ich will wirklich." In other words, the I realizes itself as antecedent of the end to be achieved and conversely realizes the object of will as dependent on itself.⁵⁰

In the succeeding sections of chapter III. Ach discusses attainment of purpose and failure to attain, with their results. The most significant of his teachings concerns the experience of power or ability. The consciousness of achievement which follows on the attainment of the willed purpose includes, he says, the consciousness expressed in the words 'I can.' This is the kernel of the feeling of independence and of the emotion of self-respect; it is the basis of my belief in my freedom of choice. (P. 268; cf. p. 244³.)

Ach's analysis of volition and his discussion of achievement are followed by a consideration of three sub-forms of volition: the abbreviated, the weak, and the habitual volition. Most important is the weak volition (*das schwache Wollen*) which is differentiated by the fact that the emphasized consciousness "I will," essential to primary volition, is replaced by a two-fold consciousness, the relatively impersonal consciousness, "this is to happen (*es soll*)" and the relatively inactive consciousness, "I am ready (*Ich bin bereit*)." Obviously the exclusion of other possibilities and the anticipated realization or bringing-to-pass of the end are lacking to volition in this weakened form (pp. 280ff). An allied form of weakened will is the experience expressed in the words "I must" or 'I ought'—an experience which implies unconditioned subordination of oneself to the task assigned (the *Aufgabe*). (P. 292². Cf. p. 244².)

Ach's discussion, in truth, fairly bristles with topics of interest to the investigator of volition. Such, for example, are his assertion that his observers never named pleasure (*Lust*) or its opposite (*Unlust*) in describing the 'primary act of will' (p. 246³), and his insistence that not the instruction, or *Aufgabe*, as such, but the undertaking or receiving of instruction, is to be looked on as a determining factor of choice (p. 284).

But we are reading Ach for an answer to the question: does experimental introspection disclose the self? The answer is unequivocally affirmative: By his phrase 'the self-aspect

⁵⁰ The observers in the investigation of Michotte and Prüm (pp. 508ff. above) do not report this consciousness of future realization and the authors, rightly in my opinion, point out that such an awareness is not a necessary character of will, however invariably present in volitions like those of Ach's subjects. Cf. Michotte and Prüm, *op. cit.*, pp. 314³ff.

of psychic phenomena' he implies that all experience involves consciousness of self. And he unequivocally asserts the rôle of the self in volition; first, in the consciousness of the end, or aim, as that which I am to carry through in the future; second, in the consciousness of preparedness, the "I am ready to accomplish this when it is due" which distinguishes the weakened will; and pre-eminently in the complete self-activity of primary will. Finally, Ach offers us at least a promising beginning of a scientific description of the willing self. He rightly stresses self-activity as the elemental aspect which distinguishes will, though he finds in will not only this consciousness of activity but other characters as well.⁵¹ And he classifies the forms of will according to the relative predominance of the activity-consciousness.⁵²

Especially to be stressed, in conclusion, is the fact that Ach definitely asserts that the self is experienced (*erlebt*) and not merely inferred to exist.

II. *The Self in Non-experimental Introspection*

The preceding section summarizes the work of investigators who assert the existence of self on the ground of immediate experimental introspection. The list of psychologists who, more or less emphatically acknowledge a self is, however, barely begun. The present section names some of these writers who, presumably, base their statements either on incidental or systematic observation even when they do not explicitly say so. One group of writers is, so far as possible, excluded, the adherents of the merely-inferred-self hypothesis. These writers agree with the believers in selfless psychology that consciousness can be adequately described without having recourse to a self; though they also hold that certain characters of consciousness presuppose the existence of a self fundamental to specific experiences. With such an inferred self, however, the philosopher, not the psychologist is con-

⁵¹ The passage (end of page 240 and first part of page 241) in which Ach describes activity as elemental is not free from ambiguity. I interpret him as teaching, correctly enough, that activity is a *svi generis* phase or attitude of the self in relation to its object. Meumann's claim (*op. cit.*, 2nd edition, p. 230²) that activity is analyzable seems to rest on an identification of activity with will.

⁵² A suggestion of the further classification into self-assertive and adoptive will—the active and passive will of Michotte and Prüm (p. 510 above)—may be found in the discussion of the consciousnesses 'I must' and 'I ought.' Cf. the writer's Introduction to *Psychology* (1901) pp. 306ff. and "A First Book in Psychology," 4th edition, pp. 244ff.

cerned, for the psychologist studies an experience as immediately realized not as later reflected on. To infer, for example, that a self must have been present in a previous recognition does not prove that the recognition was an experience of this self; yet only a self thus directly experienced can be dealt with in the psychology of recognition. In truth the self, thus conceived, plays a rôle in psychology somewhat comparable to that of matter or of the molecule in physics—the rôle not of an observed fact but of an inferred, and thus hypothetical, condition of observed facts.⁵³

Self-psychologists, excluding thus the purely philosophical, are of two groups. (1) The first and largest group includes those who hold that we are conscious of self in certain experiences and not in others. In particular, many psychologists, of most divergent views, describe—or have described—the affective consciousness as ‘subjective.’⁵⁴ Recognition, as well as emotion, is found by a growing number of psychologists to involve the consciousness of self. Katzaroff⁵⁵ includes James Mill,⁵⁶ J. M. Baldwin,⁵⁷ William James,⁵⁸ Edouard Claparède⁵⁹ and Netschajeff⁶⁰ among the upholders of this view that recognition consists in the consciousness of myself experiencing what I have previously experienced. In addition E. Dürr should be named, for he says explicitly “It is an act of self-consciousness which . . . constitutes (*ausmacht*) memory.”⁶¹ In will and belief and

⁵³ In the opinion of the writer an immediate consciousness of self is, none the less, involved in the philosophically-minded psychologist’s present experience of inferring that there was a self. This, however, is not the time at which to argue this question or to enter on a discussion of the nature of inference.

⁵⁴ The conception of the affective consciousness as subjective is so well known that it is unnecessary to give references. It should be added, however, that many writers who find the self in feeling use the term ‘feeling (*Gefühl*)’ in a very wide sense to include will, striving and (in general) the non-perceptual consciousness. This is probably the usage of Lipps and is almost certainly the meaning of Oesterreich (*op. cit.*, pp. 13, 230) and Pfänder (*Phänomenologie des Wollens*, 64ff.).

⁵⁵ *Op. cit.*, pp. 23ff.

⁵⁶ *Op. cit.*, Chap. X.

⁵⁷ *Handbook of Psychology*, p. 178.

⁵⁸ *Psychology*, I., p. 650.

⁵⁹ *Recognition et Moitié*, *Archives de Psychologie*, 1911, XI., pp. 79ff.; “Exp. sur la mémoire dans un cas de Psychose de Karsakoff,” *Revue méd. de Suisse romande*, 1907, p. 301, cited by Katzaroff.

⁶⁰ “Association par ressemblance,” 1905, cited by Katzaroff, *op. cit.*, p. 25.

⁶¹ “Grundzüge der Psychologie” von H. Ebbinghaus, fortgeführt von E. Dürr, Bd. II., S. 243. Dürr, like Mill, uses ‘memory’ in the sense of ‘recognition.’

kindred experiences, other writers find the direct consciousness of active, of submissive, or of adoptive self. Meumann, for example, says explicitly that will consists in "my knowing (1) that I am the one assenting to the purpose (*der dem Ziele zustimmende*) and (2) that this assent and my own fixation of the purpose is what controls the psychic mechanism of the execution of the activity (*Handlung*)."⁶²

C. S. Myers, finally, attributes self-consciousness to all psychic experiences except the purely sensational. "We experience," he says, "'acts' of apperception, thinking, willing, imagining, etc., in all of which the self is involved."⁶³

(2) Such a view as that of Professor Myers shades almost imperceptibly into the conception of self-psychology in the fullest sense of the term—the view that all consciousness is a consciousness of self and that the psychologist, therefore, willy-nilly studies the self. According to this conception, the self as object of direct psychological study is roughly comparable not with ether or with molecule but—let us say—with light or with air.

This paper is concerned with self-psychology of every sort and not with the matters on which self-psychologists divide. Yet it may be proper, at this point, to remark on one advantage in the complete form of self-psychology. This advantage is brought out by the examination of a great difficulty with the other theory—the view, namely, that we are sometimes but not always conscious of self, in particular, that we are aware of self in feeling and in willing only, not in perceiving and imagining. For, if we can not feel, will, or doubt without consciousness of self, it seems antecedently probable that the self is essential also to perception. A similar difficulty is involved in the kindred view, that the mature and civilized man, not the child or the savage or the animal, has the consciousness of self. For here again there emerges the problem of explaining why and at what point self-consciousness should be superimposed upon consciousness. Once grant the occurrence of consciousness of self and it is at least simpler to

⁶² "Intelligenz und Wille," 2nd edition, 1913, p. 238. Cf. 1st edition, pp. 289-290. Cf. Shand, "Types of Will," p. 300, cited by Michotte and Prüm.

⁶³ *British Journal of Psychology*, 1913, VI., p. 153. Cf. p. 140, where Myers argues that "we should make two main divisions of consciousness—the consciousness of 'acts' or 'processes' (*e. g.*, the 'acts' of attending, imagining, . . . thinking, willing) and the consciousness of 'contents' or 'products' (*e. g.*, 'what' we attend to, 'what' we imagine . . .)."

suppose it always present.⁶⁴ The unwillingness to hold that the self is invariably experienced in every consciousness is, in truth, due to the mistaken view that it is to be found only in complex and predominantly intellectual experiences, whereas it may as truly be *felt* in every primitive and inchoate consciousness.

Self-psychology in its completed form, the doctrine that consciousness involves always a consciousness of self has been explicitly avowed by James Ward,⁶⁵ by J. Rehmke,⁶⁶ by Robert M. Yerkes,⁶⁷ by Eleanor A. McC. Gamble,⁶⁸ by W. Mitchell,⁶⁸ and by the writer. James R. Angell and C. S. Judd should probably be added to this list. Angell speaks of 'the concrete actual self' and says: "the normal human mind is never a mere string of states of consciousness. It is always a unitary affair in which the past, the present and even the future are felt to hang together in an intimate personal way."⁶⁹ And Judd mentions without disapproval the view that "every human being has a direct recognition of the self from the first," provided this doctrine be supplemented by the obvious qualification that the degree of this immediate consciousness of self is not the same in early childhood and in mature life. Finally, E. Meumann,⁷⁰ E. Dürr,⁷¹ A. Pfänder,⁷² and N. Ach⁷³ should be included among those who implicitly conceive of experience as always involving the consciousness of self.

C. EXPLANATION OF THE FAILURE TO DISCOVER SELF BY INTROSPECTION

The foregoing pages have amply shown that many psychologists believe themselves to be conscious of self; and that

⁶⁴ This resembles that argument, to show that consciousness is co-extensive with life, which is based on the irrationality of the supposition that consciousness suddenly appeared at any one stage of development. Cf. G. H. Schneider, "Der thierische Wille," Kap. V., Binet "The Psychic Life of Micro-organisms," E. B. Titchener, *Popular Science Monthly*, 1902, Vol. LX., pp. 465ff., Wundt, *Grundriss*, IV., sec. 19.

⁶⁵ Cf. *Encycl. Britannica*, 9th and 11th editions, article on Psychology, and "The Definition of Psychology," quoted p. 497 above.

⁶⁶ *Op. cit.*

⁶⁷ Cf. his "Introduction to Psychology," pp. 15, 17, 53 *et passim*.

⁶⁸ *Op. cit.*

⁶⁹ Psychology, ch. XXIII., 4th ed., p. 440.

⁷⁰ *Op. cit.*, pp. 350, 351.

⁷¹ "Grundzüge der Psychologie," II., H. Ebbinghaus, fortgeführt von E. Dürr, p. 230.

⁷² "Einführung in die Psychologie," pp. 374f., 380ff., and *Die Phänomenologie des Wollens*, p. 14³.

⁷³ Cf. above, p. 514. Cf. P. Natorp, "Allgemeine Psychologie," pp. 23, 29.

not only casual but experimental introspections have discovered this self. But an insistent question remains: The self-psychologist has still to explain the fact that a large number, perhaps a majority, of psychologists deny or ignore the self. In a general way this attitude of hostility or of unconcern is, of course, accounted for by the fact that the psychologists in question seem to themselves to find no traces of self in their own introspections and in those reported by their subjects and that they consequently question the accuracy of reported introspections of a self. The problem which confronts the self-psychologist may therefore be stated in the following terms: If a self can really be found by scientific introspection why is not the consciousness of self reported by every skilled introspector?

In his attempt to answer this question the self-psychologist will first of all take issue with the statement of the facts. He finds that the technical writings of selfless psychologists are full of the terms of self-psychology; that they bristle with references to experiences, of which 'I take note,' or in which 'I am concerned,' or with definitions of psychical reality as 'that which is experienced by a single subject.' In a word, selfless psychologists are constantly implying a subject, or self, and are perpetually distinguishing it from its experiences. To the self-psychologist it seems futile to explain this inveterate habit of referring to the self by the convention of language, for the convention of acknowledging a self is precisely the fact to be explained.

Even in experimental protocols selfless psychologists talk of 'subjective' attitudes and distinguish between 'subjective' and 'objective' introspecters. And in the hard-worked contemporary concepts of 'attitude,' (*Bewusstseinslage*), and 'instruction,' or 'problem' (*Aufgabe*), as well as in the resuscitated categories of 'activity' and 'disposition,' the self-psychologist finds the most evident implications of self. It seems to him impossible that a consciousness of instruction should occur except in the form of an awareness of oneself being instructed by some one; and equally impossible that one should be conscious of attitude, of activity, or of disposition except as one is aware of a self which is active, has dispositions, and takes attitudes.

Yet, though he heaps up the circumstantial evidence that selfless psychologists are forever presupposing the self, the self-psychologist finds it very difficult, if not impossible, in any specific case to disprove the selfless psychologist's assertion that the terms 'I' and 'you' are mere 'verbal labels.'

For this reason, and because the underlying purpose of this paper is to make clear the point of view of self-psychology, rather than to confute its critics, it will be assumed in the remainder of this discussion that the facts are as stated by the opponents of self-psychology; that is, that a large number of trained observers fail to find the self in introspection. The self-psychologist can, however, offer four reasons to account for this failure. These are (1) the ubiquity of the self; (2) the fact that systematic introspection has concerned itself mainly with sensational experiences and with thought; (3) the character of the specific directions often given to introspecters; and (4) the fact that conceptions of introspection and of report often virtually or explicitly exclude all reference to the self.

(1) The fact, so often already emphasized, that I am always conscious of the self tends directly to make me inattentive to it. Just as, if I were asked to report fully my sensational experience at a given moment, I might well forget to name the sensations of pressure from my clothing simply because they are so constant, so presumably for a similar reason introspecters often fail to name the self.

(2) A second reason why controlled introspection has so little to say about the self, is that it has been largely occupied either with perception and imagination or with thinking—with the 'thought-processes,' 'imageless thought,' 'relational elements,' *Denkthätigkeit*. But perception and imagination have impersonal and 'external' objects and thought is mainly concerned not with personal objects—myself and other selves—but with strictly impersonal relations. When I study discrimination, comparison, or inference I am far more concerned with the impersonal relations, likeness and causality, or with the similar and the causally related things, than with my relating self and its fellows. In recording my introspection of perception, imagination or thought I am therefore very likely not to name the unemphasized consciousness of self.

(3) Directions given to introspecters seldom make mention of the self. The subject is bidden to attend to all his sensations—and he is especially reminded of the kinaesthetic and organic sensations—he is told to make note of pleasantness and unpleasantness if they occur and to mark the intensity and order and duration of the different experiences; and he may be asked to mark the appearance of any unsensational factors. There are even a few recorded instances in which the subject has been (unavailingly) directed to note any case of self-consciousness should it occur. But specific sugges-

tions of phases or factors of self-consciousness are very infrequently given. The subject is seldom bidden to distinguish between receptiveness and activity of the self, or to note any awareness of sharing others' experience, or to observe any consciousness of himself as persisting or as differentiated from other selves. In default of such concrete suggestions he is bound to record his introspection in the terms most familiar to him—those of selfless psychology.

(4) The most significant reason for the infrequent appearance of the self in introspective records lies in two allied preconceptions about introspection which arbitrarily and by definition limit its scope. The first of these is the doctrine that introspection must have for its object either structural elements or psychic functions⁷⁴ and that a trustworthy report of introspection, in other words, a description of experience must limit itself to an enumeration of these elements (or functions). In the Cornell laboratory, for example, the observer is formally taught that "in introspection we are describing a conscious process" and that "the categories of description are the last terms of analysis, the elementary processes and their attributes."⁷⁵ Evidently the well-trained subject, taught that introspection consists in an enumeration of elementary processes (whether these be conceived as sensations, affections, and possible thought-elements or as functions) will report these processes only. The self is accordingly foredoomed to perpetual exile from psychology.

To the contention of the self-psychologist that this conception of psychology is inadequate and that a complete description of experience must include not only this enumeration of elementary processes but also a further account of the self whose the processes are, the upholders of this view of introspection oppose the second of their *a priori* dogmas. They declare that an account of the self in its different attitudes⁷⁶ toward its environment is a mere untechnical narra-

⁷⁴ Functional, as well as structural psychology, sometimes dispenses with a self.

⁷⁵ "The Schema of Introspection," this JOURNAL, 1912, 23, pp. 494³, 495².

⁷⁶ I use this term to designate the basal relations of the self to its objects. To the criticism (cf. E. A. Gamble, *op. cit.*, p. 197¹) that the term should be devoted exclusively to the translation of Marbe's *Bewusstseinslage* I can only reply (1) that I used the word 'attitude' in the same year, 1901, in which Marbe employed *Bewusstseinslage* (cf. my "Introduction to Psychology," first edition); (2) that, though Marbe uses the term in a wider sense, my 'attitudes' would, in my opinion, fall under his *Bewusstseinslagen*; and (3) that I know no other term which expresses my meaning so well.

tion of experience, a 'statement of meaning' or a 'verbal statement,'⁷⁷ not a 'scientific description.' The acceptance of this dogma again automatically excludes the self from psychology since the everyday observer is constantly describing himself declaring, for example, that he can feel 'himself' growing angrier and angrier; that he is sure 'he' has been here before; or that he can make his goal if only he exerts 'himself.'

The doctrine of the radical difference between the object of the scientific and that of the every-day consciousness is stated by Titchener in the following passage: "The world of things and people . . . is never identical either with the world of physics or with the world of psychology; for physics deals not with boats and trains but with masses and distances and velocities; and psychology deals not with quarrels and successes, but with emotions and voluntary actions."⁷⁸ Few physicists or psychologists will find themselves in full harmony with this teaching. The world of physics and the world of psychology are, to be sure, not completely identical, each for each, with the world of things and the world of people, and physics and psychology, as analytic sciences, do indeed concern themselves with masses and velocities on the one hand and with emotions and volitions on the other. But this is far from a proof that physics and psychology do not analytically study the objects of the plain man's uncritical observation. Rather, the masses and velocities, the emotions and the volitions are the outcome of the scientists' analytic study of boats, trains, quarrels, and successes. To state this in more general terms: The argument on which is based the view that the object of scientific description can not be identical with that of the every-day consciousness is the fact that scientific description differs from the every-day narration of experience. This difference unquestionably exists but is amply accounted for by the difference in method and purpose between the scientific and the unscientific report.⁷⁹

⁷⁷ The first phrase is used by Titchener, the second by Dürr. Neither phrase is unambiguous. The second unduly limits the meaning of its terms: even a scientific description is a verbal statement in the ordinary sense of the words; and the same comment may be made on von Aster's 'communication' (*Kundgabe*). As for the term 'meaning:' its different uses in contemporary psychology certainly call for comparative study. Between Titchener's use, for example, and Angell's virtual application of the term to 'thought processes' there is a contrast which should at least be named.

⁷⁸ "Description Vs. Statement of Meaning," this JOURNAL, 1912, 23, p. 167².

⁷⁹ Cf. pp. 500ff. above.

There seems then no reason for accepting the dogma of the essential difference between scientific and every-day objects. And indeed this distinction is sharply contradicted by the actual procedure of the sciences which are forever analyzing and explaining precisely the objects—lightning and rainbow, tide and dew—which the plain man uncritically observes. To illustrate this from sense-psychology: the plain man has not been trained to notice the blueness of the afternoon shadows on the snow; but the psychologist, while correcting his description, does not refuse to believe that the plain man has seen an object roughly indicated by the term 'snow.' Similarly, though the psychologist may well question the accuracy of the plain man's account of the self he is unjustified in overlooking the common assertion, or implication, of a self basal to perceptions, memories and volitions. But whether or not the self-psychologist's positions are accepted, the main contention of this section is incontrovertible. For it is clear that if introspection be defined as enumeration of 'conscious processes,' and if description be limited to objects radically different from those of ordinary introspection, then the self is excluded, by instruction, from experimental report.

In conclusion, the remark may be hazarded that in view of the relative paucity of introspective studies and of their preoccupation with relatively impersonal experiences, and in view, also, of the directions given to introspectors and of the preconceptions on which these directions are based—it is perhaps more surprising that the self has played any rôle at all in technical psychology than that many psychologists should fail to record its presence.